

Council on Competitiveness

# National Innovation Initiative: Vision and Structure

Dr. G. Wayne Clough  
President, Georgia Tech  
Co-chair, National Innovation Initiative  
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Intersection of Innovation

# Technology Square

- ⇒ Revitalizes a run-down section of Midtown Atlanta
- ⇒ Creates a visible high-tech nexus for Atlanta
- ⇒ Incorporates faculty and students into the city's economic pulse
- ⇒ Promotes innovation and technology transfer
- ⇒ Connects Georgia Tech with the world

# Innovation...

- ⇒ Occurs in a global ecosystem
- ⇒ Has multiple points of intersection among business, government, and academia
- ⇒ Can occur in any industry from energy to transportation, from biotechnology to information technology
- ⇒ Creates jobs

“Innovation occurs at the intersection of invention and insight. It’s about the application of invention – the fusion of new developments and new approaches to solve problems.”



Sam Palmisano, IBM  
Council on Competitiveness Annual Meeting  
October 30, 2003

# Powerful trends reshape the world economy

- ⇒ High-speed communications / Internet
- ⇒ End of the Cold War political constrictions
- ⇒ Removal of barriers to trade and growth of trading blocks
- ⇒ Emergence of technology-based economies in other nations
- ⇒ Sustained investment in higher education in countries like India and China

“U.S. high-tech leadership is not guaranteed. That is all there is to it. We have it. We enjoy it. We have been here forever, but it is not guaranteed going forward. If we lose that leadership and if we don't have it as a driving force in our economy, it will have an impact on our ability to maintain and further improve our standard of living in the future. That is a reality.”

George Scalise  
Semiconductor Industry Association  
Member, PCAST

# Outsourcing jobs to other nations

By 2015, 3.3 million white-collar jobs paying \$136 billion in wages will have moved from the United States to lower cost countries.

Forrester Research Inc.

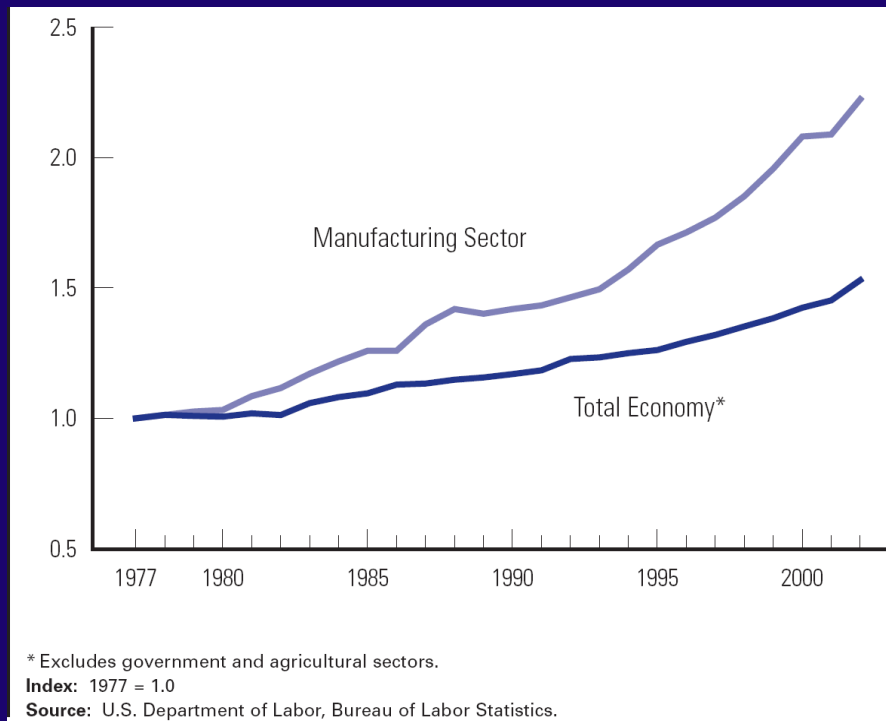
Over the past 10 years, the U.S. economy has created a total of 35 million new private sector jobs.

McKinsey Global Institute

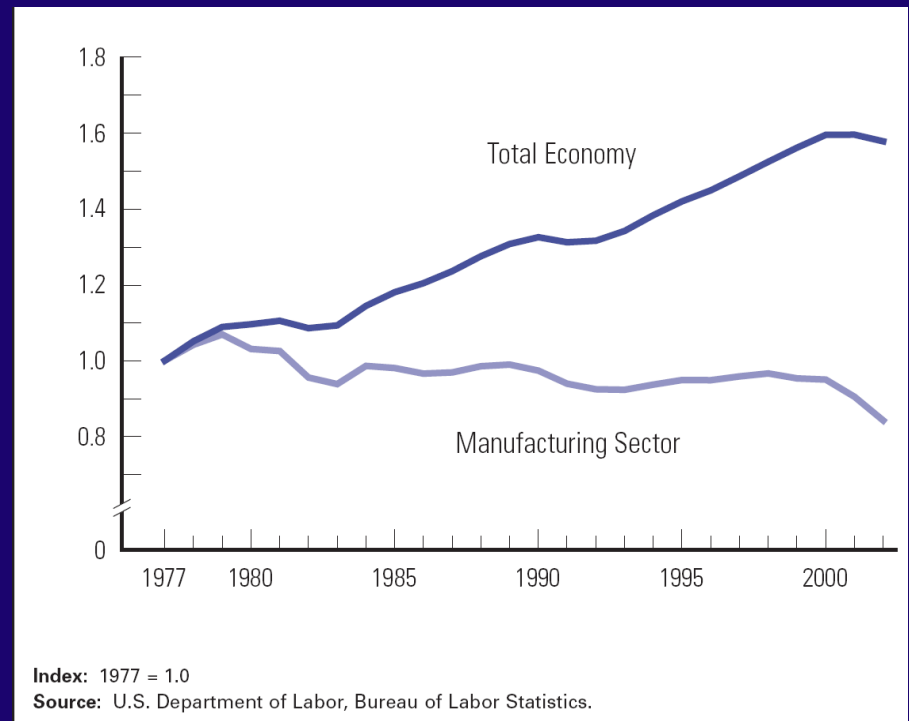


# Improving productivity shrinks manufacturing workforce

## U.S. Productivity (1977 – 2002)



## U.S. Employment Growth (1977-2002)



**NOTE:** Manufacturing's contribution to real private output growth has remained roughly the same since 1977.

# Educating a competitive workforce

“We are in a highly competitive state with other countries that have taken education very seriously... China graduated close to 40 percent of engineers as undergraduates last year. We graduated less than 6 percent. Now this should be a frightening thought to all of us.”

Phyllis Elsen  
National Association of Manufacturers

# So, what's the answer?

“I could throw up my hands. I could shut my factory. I could turn my factory into condominiums... and just ship my manufacturing overseas, and – guess what – I can make more money... I don't think that's the right way to go... I'd like to think that we can be creative and innovative.”

Joe Fusco, Novus Fine Chemicals  
Quoted in *Manufacturing in America*  
U.S. Commerce Department

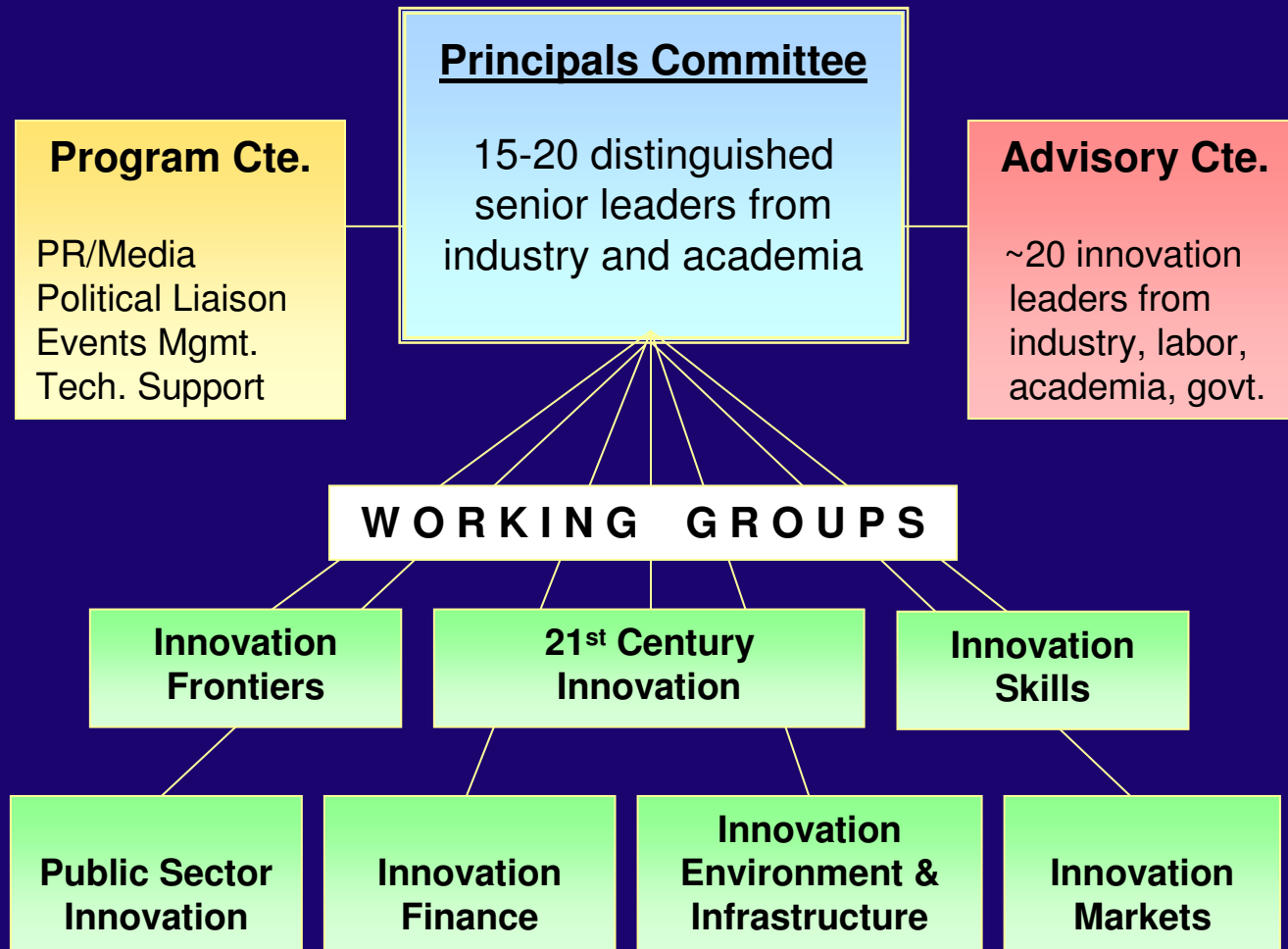
“Before these Indian programmers have something to fabricate, maintain, test, or upgrade, that something must first be imagined and invented... which requires aptitudes that are more difficult to outsource – imagination, empathy, and the ability to forge relationships.”

Daniel H. Pink  
*Wired Magazine*, Feb 2004

# Creating a framework for U.S. innovation leadership

- ⇒ Look beyond the usual tools for economic stimulus such as monetary and fiscal policy.
- ⇒ Cover a wide-ranging scope.
- ⇒ Develop an integrated set of actions aimed at driving innovation at all levels of the economy.

# National Innovation Initiative



# Principals Committee

## Co-Chairs:

Samuel J. Palmisano, chairman and CEO, IBM Corporation

G. Wayne Clough, president, Georgia Institute of Technology

Gerard J. Arpey, president and CEO, American Airlines

Molly Corbett Broad, president, University of North Carolina

Mary Sue Coleman, president, University of Michigan

Denis A. Cortese, president and CEO, Mayo Clinic

Robert M. Gates, president, Texas A&M University

John L. Hennessy, president, Stanford University

Shirley Ann Jackson, president, Rensselaer Polytechnic Institute

James J. Mulva, president and CEO, ConocoPhillips

Vikram Pandit, co-president and COO, Morgan Stanley

Steven S. Reinemund, chairman and CEO, PepsiCo, Inc.

W. J. Sanders III, founder and chairman, AMD

Charles M. Vest, president, Massachusetts Institute of Technology

G. Richard Wagoner, chairman and CEO, General Motors

*Working groups*

## 21<sup>st</sup> century innovation

- ⇒ What are the new metrics for innovation in a networked global economy?
- ⇒ How can we drive innovation across disciplines and industrial sectors and at the intersection of manufacturing and services?



*Working groups*

## Innovation frontiers

- ⇒ What are the critical emerging technologies that will drive future economic growth?
- ⇒ How can new knowledge be rapidly and effectively integrated into the innovation enterprise?

*Working groups*

## Innovation skills

- ⇒ How do we teach individual creativity, problem-solving, and teaming skills?
- ⇒ What kind of incentives will increase the flow of students into fields of future demand?
- ⇒ How can we nurture interdisciplinary approaches?

*Working groups*

## Public sector innovation

- ⇒ How can governments promote strategic partnerships among private and public sectors, universities and labor?
- ⇒ How can government drive innovation as an early adopter?

## Innovation finance

- ⇒ How can incentives for private sector investments in innovation be strengthened?
- ⇒ What policies and strategies will expand the pool of risk capital for entrepreneurial investment, facilitate a longer-term horizon for innovation investments, and stimulate investment in research by the private sector?

*Working groups*

# Innovation environment and infrastructure

- ⇒ How can national and state policy makers encourage an innovation-friendly environment?
- ⇒ How can we assure that innovators have access to state-of-the-art facilities and equipment?

## Innovation markets

- ⇒ How can we assure that U.S. innovators have access to global markets and a level playing field on which to compete?
- ⇒ How can we protect intellectual property and enforce legitimacy and transparency in global marketing?

“The biggest danger to U.S. workers isn’t overseas competition. It’s that we worry too much about other countries climbing up the ladder and not enough about finding the next higher rung for ourselves.”

Michael Mandel  
Chief Economist, *Business Week*  
*Aug 28, 2003 issue*

# Timeline for working groups

- ⇒ **May 1**: All comments to group chairs for interim reports
- ⇒ **Mid-late May**: Groups meet to discuss interim reports
- ⇒ **June 15**: Groups submit interim reports
- ⇒ **July**: Principals Committee reviews reports, makes suggestions
- ⇒ **September**: Groups meet to refine reports
- ⇒ **October**: Group chairs submit revised reports; Principals Committee provides feedback
- ⇒ **November**: Group chairs submit final reports
- ⇒ **December**: National Innovation Summit



# Regional summits

- ⇒ Will generate interest and offer input
- ⇒ Hosted by participating universities
- ⇒ Working groups encouraged to hold their May, September meetings in conjunction with regional summits
- ⇒ Example: Rensselaer Polytechnic Institute planning a regional summit Sept 7-8, coinciding with the time frame for the third working group meeting

# Virtual working environment

- ⇒ IBM collaborative software available to working groups on Web portal accessed through Council website ([www.compete.org](http://www.compete.org))
- ⇒ Provides ongoing, continuous opportunity for groups to interact, share ideas and knowledge, upload and download information

# Charge to the working groups

- ⇒ Tomorrow morning's break out sessions:
  - Identify the issues
  - Begin to formulate strategic, actionable recommendations
- ⇒ Tomorrow afternoon's plenary session:
  - Assemble the larger, common agenda
  - Address any gaps or areas of overlap
- ⇒ Leave Atlanta with:
  - Work defined
  - Work plan outlined
  - Workload assigned